



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,210	02/17/2004	Toshiaki Nakanishi	848075-0072	1941
29619 7590 04/10/2008 SCHULTE ROTH & ZABEL LLP ATTN: JOEL E. LUTZKER 919 THIRD AVENUE NEW YORK, NY 10022				
EXAMINER TRINH, TAN H				
ART UNIT 2618		PAPER NUMBER		
MAIL DATE 04/10/2008		DELIVERY MODE PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/781,210

**Applicant(s)**

NAKANISHI, TOSHIAKI

**Examiner**

TAN TRINH

**Art Unit**

2618

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-850)
- Paper No(s)/Mail Date 02-26-2008
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 02-26-2008, the information disclosure statement has been considered by the examiner.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Keskitalo (U.S. Patent No. 6,345,188).

Regarding claim 1, Keskitalo teaches a base station (100) (see figs. 1, base station 100), which communicates with a radio terminal (102) (see fig. 1, base station 100, communication with radio terminal 102), comprising: an adaptive antenna (see fig. 3, col. 6, lines 37-67); a receiving condition acquisition portion for acquiring a signal from the radio terminal concerning a quality of reception of the radio terminal (see fig. 1 and 4, col. 6, lines 29-36, and col. 7, lines 54-col. 8, lines 9); and a directivity control portion for controlling the directivity of the adaptive antenna in response to the quality of reception of the radio terminal (see fig. 1 and 4, col. 7, lines 1-col. 8, lines 15).

Regarding claim 2, Keskitalo teaches the directivity control portion sets the to be non-directional (omnidirectional) (see col. 6, lines 37-44, and col. 11, lines 59), until a connection request is received from the radio terminal (see fig. 1 and 4, col. 8, lines 60-65), and controls the directivity of the adaptive antenna based on the acquired signal concerning the receiving condition of the radio terminal after receiving the connection request from the radio terminal (see col. 8, lines 45-65, and col. 10, lines 4-15).

Regarding claim 3, Keskitalo teaches a base station (100) which communicates with a radio terminal (102) (see fig. 1) comprising: an adaptive antenna (see fig. 3, col. 6, lines 37-67); a receiving condition acquisition portion for acquiring a signal from the radio terminal concerning a quality of reception of the radio terminal from the radio terminal which depends transmission direction of a radio wave of the adaptive antenna (see fig. 1 and 4, col. 6, lines 29-36, and col. 7, lines 1-col. 8, lines 9), while changing the transmission direction of the radio wave of the adaptive antenna (see fig. 4, col. 7, lines 1-col. 8, lines 15); and a directivity control portion for controlling the directivity of the adaptive antenna at the transmission direction of the radio wave corresponding a signal concerning the good quality of reception of the radio terminal among the acquired signals (see fig. 1 and 4, col. 7, lines 1-col. 8, lines 15).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keskitalo (U.S. Patent No. 6,345,188) in view of Ponnekanti (U.S. Pub. No. 2002/0150065).

Regarding claim 4, Keskitalo teaches a base station (100) which communicates with a radio terminal (102) (see fig. 1) comprising: an adaptive antenna (see fig. 3, col. 6, lines 37-67); a receiving condition acquisition portion for acquiring a signal from the radio terminal concerning a quality of reception of the radio terminal from the radio terminal which depends transmission direction of a radio wave of the adaptive antenna (see fig. 1 and 4, col. 6, lines 29-36, and col. 7, lines 1-col. 8, lines 9), while changing the transmission direction of the radio wave of the adaptive antenna (see fig. 4, col. 7, lines 1-col. 8, lines 15); and a directivity control portion for controlling the directivity of the adaptive antenna at the transmission direction of the radio wave corresponding a signal concerning the good quality of reception of the radio terminal among the acquired signals (see fig. 1 and 4, col. 7, lines 1-col. 8, lines 15). But Keskitalo does not mention the transmission direction of the radio wave corresponding to good data rate control.

However, Ponnekanti teaches the transmission direction of the radio wave corresponding to good data rate control (see fig. figs. 4 -7, page 1, section [0005], and page 5, section [0075] and page 16, section [0252]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify above teaching of Keskitalo with Ponnekanti, in order to provide the quality of the signals received by the mobile unit can be improved without increasing the transmitter power (see suggested by Ponnekanti on page 16, section [0252]).

Regarding claim 5, Keskitalo teaches a base station (100) which communicates with a radio terminal (102) (see fig. 1) comprising: an adaptive antenna (see fig. 3, col. 6, lines 37-67); a receiving condition acquisition portion for acquiring a signal from the radio terminal concerning a quality of reception of the radio terminal from the radio terminal which depends transmission direction of a radio wave of the adaptive antenna (see fig. 1 and 4, col. 6, lines 29-36, and col. 7, lines 1-col. 8, lines 9), while changing the transmission direction of the radio wave of the adaptive antenna (see fig. 4, col. 7, lines 1-col. 8, lines 15); and a directivity control portion for controlling the directivity of the adaptive antenna at the transmission direction of the radio wave corresponding a signal concerning the good quality of reception of the radio terminal among the acquired signals (see fig. 1 and 4, col. 7, lines 1-col. 8, lines 15). But Keskitalo does not mention the directivity control portion controls the directivity of such adaptive antenna which is used for changing a rate of data transmitted from the base station to the radio terminal the signal used for changing the rate of data acquired from the radio terminal.

However, Ponnekanti teaches the directivity control portion controls the directivity of such adaptive antenna which is used for changing a rate of data transmitted from the base station to the radio terminal the signal used for changing the rate of data acquired from the radio terminal (see figs. 4 -7, page 1, section [0005], and page 5, section [0075] and page 16, section [0252] and sections [0254-0256]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify above teaching of Keskitalo with Ponnekanti, in order to provide the quality of the signals received by the mobile unit can be improved without increasing the transmitter power (see suggested by Ponnekanti on page 16, section [0252]).

***Response to Arguments***

6. Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

7. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

**(571) 273-8300, (for Technology Center 2600 only)**

*Hand-delivered responses should be brought to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314).*

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tan Trinh whose telephone number is (571) 272-7888. The examiner can normally be reached on Monday-Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiners supervisor, Anderson, Matthew D., can be reached at (571) 272-4177.

The fax phone number for the organization where this application or proceeding is assigned is **(571) 273-8300**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Technology Center 2600 Customer Service Office** whose telephone number is **(703) 306-0377**.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tan H. Trinh  
Division 2618  
April 7, 2008

/TAN TRINH/  
Primary Examiner, Art Unit 2618  
04-07-2008